

REMARKS

The drawings have been objected to under 37 CFR 1.83(a).

Claim 1 claims a method and claim 10 claims a delivery unit. In neither of these claims is the processing apparatus part of what is claimed. The features which Applicant wishes to protect are the method of delivering to a processing apparatus and the delivery unit for supplying a processing apparatus. The processing apparatus itself is not part of the invention being claimed. Therefore, applicant does not believe that it is necessary for the apparatus to be illustrated.

Claims 1-2, 9-10, 20-21 have been rejected under 35 U.S.C. 102(b) as being anticipated by Popp et al 5,443,181. This rejection is respectfully traversed.

The present invention is directed towards a delivery unit and method for supplying low viscosity processing solution to a processing apparatus. The delivery unit comprises a storage container with a piston incorporated therein, together with means for activation of the piston. A fixed amount of solution is metered out of the unit as required. The amount of solution which is metered out can be very accurately varied and controlled by changing the displacement of the piston. The container acts as both the storage container and as part of the metering system for delivering accurate volumes of solution. It is not intended that the entire volume of solution in the container is emptied in one go – this would not be a metering system but a one-shot device.

Popp discloses a cartridge and piston for dispensing a viscous mass. One or more foil bags are located within the cylinder of the cartridge and the contents thereof squeezed out on displacement of the piston. There is no disclosure nor suggestion in Popp of being able to vary the amount of mass dispensed. Claim 1 specifies that a variable amount of solution is supplied and that the container forms part of a metering system. Claim 10 likewise calls for means for activating the piston such that a variable fixed amount of solution is delivered. Popp does not therefore disclose or suggest all the features required by claim 1 or claim 10.

For the reasons set out above, claims 1 and 10 of the present application should be allowed over Popp.

Claims 2, 9, 20-21 are dependent on claims 1 and 10 respectively. They therefore include all the features of claims 1 and 10. For the same reasons as set out above, claims 2, 9, 20-21 of the present invention should be allowed.

Claims 1-2,5,7,9-10,13,20,21 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor et al (EP0354663) in view of Sartain 4,323,176. This rejection is respectfully traversed.

Taylor discloses a system for introducing a flowable additive for a syringe into a container of paint or such like. The entire contents of the syringe are emptied into the container in one go. There is no suggestion that the additive should be metered into the container. The system is concerned with a one shot device. The system addresses the problem of spillage between the syringe and the container. The design of the syringe ensures accurate location relative to the container and minimizes the chance of movement during delivery of the additive. The syringe can only be used once since after the addition of the additive into the container the piston rod and chamber are detached and removed. The entire contents must therefore be emptied into the container.

Sartain discloses a ratchet type dispenser for dispensing comestibles. The amount of comestible dispensed may be varied. However, the ratchet must be physically changed to one of a different pitch in order for the amount to be varied, i.e, the dispenser has to be modified, the means for varying the amount not being an inherent part of the dispenser. In the method and delivery unit claimed in the present invention the means for varying the amount of solution delivered is an inherent part. Combining Taylor and Sartain would not therefore result in the invention as claimed in claims 1 and 10 of the present application.

For the reasons set out above, claims 1 and 10 of the present application should be allowed over Taylor in view of Sartain.

Claims 2,5,7,9,13,20,21 are dependent on claims 1 and 10 respectively. They therefore include all the features of claims 1 and 10. For the same reasons as set out above, claims 2,5,7,9,13,20,21 of the present invention should be allowed.

Claims 1-3,5-7,9-10,14, 16,20,21 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor et al (EP0354663) in view of Bristow 4,406,654. This rejection is respectfully traversed.

As discussed above, Taylor is a one shot device in which the syringe is designed to be completely emptied in one go. There is no additive left in the syringe after operation. The syringe disclosed in Taylor therefore cannot be considered to be a storage container since all the contents are expelled and no storage of remaining contents is required.

Bristow discloses an adjustable animal feeding device for modifying feed or medicinal doses. The device has to be loaded with a container

which has the feed or medicine required. The container is not disclosed in Bristow.

The present invention requires that the container delivering the solution is also the storage container since the volumes of solution being delivered are less than the total volume of the container. The storage and delivery of the solution thus comes in one complete package, there is no need for any additional equipment. A combination of Taylor and Bristow does not therefore result in the invention as claimed.

For the reasons set out above, claims 1 and 10 of the present application should be allowed over Taylor in view of Bristow.

Claims 2-3,5-7,9,14, 16,20,21 are dependent on claims 1 and 10 respectively. They therefore include all the features of claims 1 and 10. For the same reasons as set out above, claims 2-3,5-7,9,14, 16,20,21 of the present invention should be allowed.

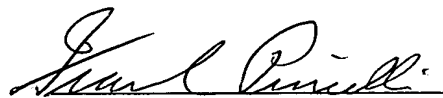
Claims 11 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor et al (EP0354663) in view of Sartain 4,323,176 and further in view of Hoffman et al. 4,522,316. This rejection is respectfully traversed.

As stated above, claim 10 should be allowed over Taylor in view of Sartain. Claim 11 is dependent on claim 10 and therefore includes all the features of claim 10. Hoffman discloses a container for plastics substances. The container incorporates a plastic seal provided behind the piston portion of the container. Hoffman does not disclose nor suggest the further features which would be required after a combination of Taylor and Sartain to result in the invention claimed in claim 10.

For the reasons set out above, claim 11 of the present application should be allowed over Taylor in view of Sartain and further in view of Hoffman.

In view of the foregoing, Applicant respectfully submits that the claims in their present form are in condition for allowance and such action is respectfully requested.

Respectfully submitted,


Attorney for Applicants
Registration No. 27,370